Implementing the EU Methane Regulation in Czechia

A practical guide for public authorities

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Abbreviations

AUCM	Abandoned underground coal mine
CA	Competent authority
CH_4	Methane
CRV	Core Reference Value
CSOs	Civil society organisations
CUCM	Closed underground coal mine
EUKI	European Climate Initiative
EU-MER	EU Methan Emissions Regulation
IMEO	International Methane Emissions Observatory
IPAW	Inactive, temporarily or permanently plugged and abandoned oil and gas wells
LDAR	Leak detection and repair
LNG	Liquified natural gas
MRV	Monitoring, reporting and verification
MS	EU Member States
MŽP	Czeck Ministry for the Environment (Ministerstvo životního prostředí České republiky)
OGMP	Oil and Gas Methane Partnership
RP	Responsible party
RM	Responsible ministry
V&F	Venting and flaring

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Introduction

This report aims to support Czech public authorities in implementing EU Regulation 2024/1787 on methane (CH_4) emissions in the energy sector (EU-MER). It also provides valuable information for companies affected by the Regulation and civil society organisations engaged in its implementation.

The impact of the EU-MER will depend on the quality of its implementation. Although EU regulations such as the EU-MER are directly applicable across all EU Member States, the EU-MER's implementation depends on substantial executive measures as well as some supplementary regulatory provisions at the national level. This report provides information and practical support to help the Czech government and encourage the teams at the soon-to-be established competent authorities (CA) to implement the EU-MER effectively, thoroughly, timely and efficiently.

Structure of this report

Chapter 1 provides a concise overview of the key provisions of the EU-MER, outlining the responsibilities assigned to the European Commission, Member States (MS) and operators, with a focus on milestones leading up to 2026.

Chapter 2 offers a detailed discussion on the division of work and governance principles at the national level and examines what is currently known about the definition of the responsible ministry (RM) and of the competent authorities (CAs) in Czechia.

Chapter 3 outlines the sources of CH_4 emissions from the energy sector in Czechia.

Chapter 4 details the key duties of the RM and CAs in supporting, monitoring, and enforcing the EU-MER implementation, excluding the main tasks discussed in the two following chapters.

Chapter 5 details the tasks related to establishing national inventories of disused fossil fuel extraction sites and planning and implementing CH_4 mitigation measures at these sites.

Chapter 6 addresses the inspections of operators of domestic CH_4-emitting sites and importers.

Building on the previous analysis, Chapter 7 examines the resources and powers needed by the CAs to fulfil their EU-MER implementation duties in Czechia, along with strategies aimed at keeping the implementation costs at bay.

The three annexes provide detailed lists of incoming reports to be evaluated, decisions to be made, and reports and publications to be produced by the Czech CAs.

Further activities envisaged within the same project

This report was developed under the project *Implementing the EU Methane Emission Regulation: Engaging Authorities, Civil Society, and Businesses*, supported by the European Climate Initiative (EUKI) – a programme funded by the German Federal Ministry for Economic Affairs and Climate Action, based on a decision of the German Bundestag. The project, coordinated by the Bucharest University of Economic Studies in collaboration with Centre for Transport and Energy, Ecologic Institute, and Environmental Defense Fund Europe, started in December 2024 and will run until the end of 2026.

This report is published at the outset of the EU-MER's implementation. Accordingly, it primarily offers an overview of key issues related to its future implementation in Czechia. As the EU-

MER implementation process progresses, two additional reports are planned to assess implementation developments and reflect on the steps taken.

Moreover, the project will actively support public authorities, civil society organisations (CSOs) and businesses by developing and implementing a series of targeted activities:

- Capacity building and training: the project will provide information and support for organising workshops and training sessions for representatives of public authorities, companies and civil society organisations in the energy sector. These sessions will cover key aspects of EU-MER requirements, effective methane emissions reduction methods, and the use of advanced technologies for monitoring and reporting.
- Facilitating stakeholder dialogue: the project will organise discussions and meetings between public authorities, the private sector and non-governmental organisations to ensure effective collaboration and information exchange on EU-MER implementation.
- Piloting and data collection: pilot projects will be conducted to test innovative technologies for measuring and reducing methane emissions, and the data collected will contribute to improving national policies in this area.
- Monitoring and policy recommendations: the project will provide data-driven analysis and recommendations to support national authorities in aligning regulations and methane reduction measures with EU requirements.
- An economic analysis of the costs and benefits of reducing methane emissions in the energy sector in Romania.
- Investor briefings and engagements on implementing the EU-MER in Romania.

Through these initiatives, the project aims to accelerate the reduction of methane emissions and to create an effective collaborative framework between all actors involved.

Key sources used in this report, and their citation format

The primary source of this report is the legal text of the EU-MER. It is accessible in all official languages of the European Union via the relative page on the EUR-LEX database. When quoting the legal text of the EU-MER, we use the following format. The EU-MER "*lays down rules for the accurate measurement, quantification, monitoring, reporting and verification of methane emissions in the energy sector in the Union, as well as the reduction of those emissions (…).*" [Art 1(1)]. This indicates that the citation is taken from Article 1, paragraph 1 of the EU-MER, with part of the paragraph omitted.

Furthermore, this report draws extensively on a series of three Working Papers on the EU Methane Regulation published by Ecologic Institute in June 2024.

- Tasks and resources needed at the national level (Piria, de la Vega, and Velten 2024)
- Governance at the national level: Responsible ministries and competent authorities (Piria and Martini 2024)
- Penalties and selected legal issues (Piria, Sina, and Dück 2024)

As the principal author of those papers is also the lead author of this report, and with the consent of the co-authors, we have not provided explicit citations, even where wording, phrases or entire paragraphs have been replicated, in order to enhance readability.

When quoting other sources, in some cases we provide a hyperlink to the original publication as in this section. As a result, this report is best read on screen than in print.

1 Short overview on the EU-MER

Regulation (EU) 2024/1787 on methane emissions in the energy sector (EU-MER) has been adopted by large majorities in both legislative bodies of the European Union.

Overwhelming majorities provide high democratic legitimation

In the European Parliament, the EU-MER was approved in plenary on 10 April 2024, with 530 votes (85%) in favour, 63 (10%) against and 28 (5%) abstentions. Among the 21 Members of the European Parliament elected in Czechia, 15 (71%) voted in favour, while 6 (29%) voted against (EP 2024). In the European Council, 26 of the 27 Member States voted in favour, with only Hungary opposing.

These overwhelming majorities reflect a strong consensus and confer a high level of democratic legitimacy on the EU-MER, both at the EU level and specifically in Czechia.

Why was the EU-MER adopted with such large majorities?

Because it was an obvious choice. Methane (CH_4) is the second most important greenhouse gas. Anthropogenic methane is responsible for approximately 30% of global warming since the Industrial Revolution (IEA 2024a). CH_4 has an exceptionally strong short-term warming effect. Over a 100-year period, its global warming potential (GWP) is about 30 times that of CO_2, but over 20 years, it is 84 times higher. The short lifetime and high warming impact of methane make rapid action on this climate-warming gas crucial. Rapidly cutting methane emissions from fossil fuel operations could avoid up to 0.1°C of warming by mid-century (IEA 2023b)

For these reasons, in 2021, the EU, together with the USA, co-initiated the Global Methane Pledge, a commitment to reducing global CH_4 emissions by at least 30% between 2020 and 2030. Since then, 160 countries have signed the pledge. Rapid CH_4 emission reductions are critical for the EU to meet its climate targets (EEA 2022; 2025).

The energy sector accounts for more than one third of global anthropogenic CH_4 emissions and offers the greatest short-term potential for CH_4 abatement (IEA 2024b). More than in any other CH_4 emitting sectors, many CH_4 mitigation measures in the energy sector are a very cost-effective way to limit warming in the near term: more than 50% of emissions from the oil and gas industry could be abated at no net cost (IEA 2024a). Best practice is well established in the oil and gas sector, with some operators performing up to 100 times better than others. Methane mitigation opportunities in the agriculture and waste sectors are not as developed or considered more challenging, although they will eventually also need to be implemented. All these reasons contribute to making the energy and in particular oil and gas sector the low-hanging fruit of methane mitigation globally, which explains why our efforts are currently focused on this area of industry.

The EU-MER applies to

According to Art. 1, the EU-MER applies to:

- Mining and post-mining activities related to active underground and surface coal mines, including CH_4 emission from ventilation shafts, drainage stations, venting and flaring
- Closed and abandoned underground coal mines where production ceased after 3 August 1954
- Oil and fossil gas exploration and production

- Inactive, temporarily or permanently plugged and abandoned oil and gas wells (IPAW)
- Fossil gas gathering and processing in the EU
- Natural gas infrastructure, including transmission and distribution, underground storage and LNG facilities, but excluding metering systems at final consumption points and the parts of service lines between the distribution network and the metering system located on the property of final customers.
- Methane emissions occurring outside the Union, with respect to imported crude oil, natural gas and coal placed on the Union market.

The main provisions of the EU-MER in a nutshell

This list provides a compact overview of the main provisions of the EU-MER. All main tasks of the Member States and their competent authorities are discussed in more detail in the following chapters of this report.

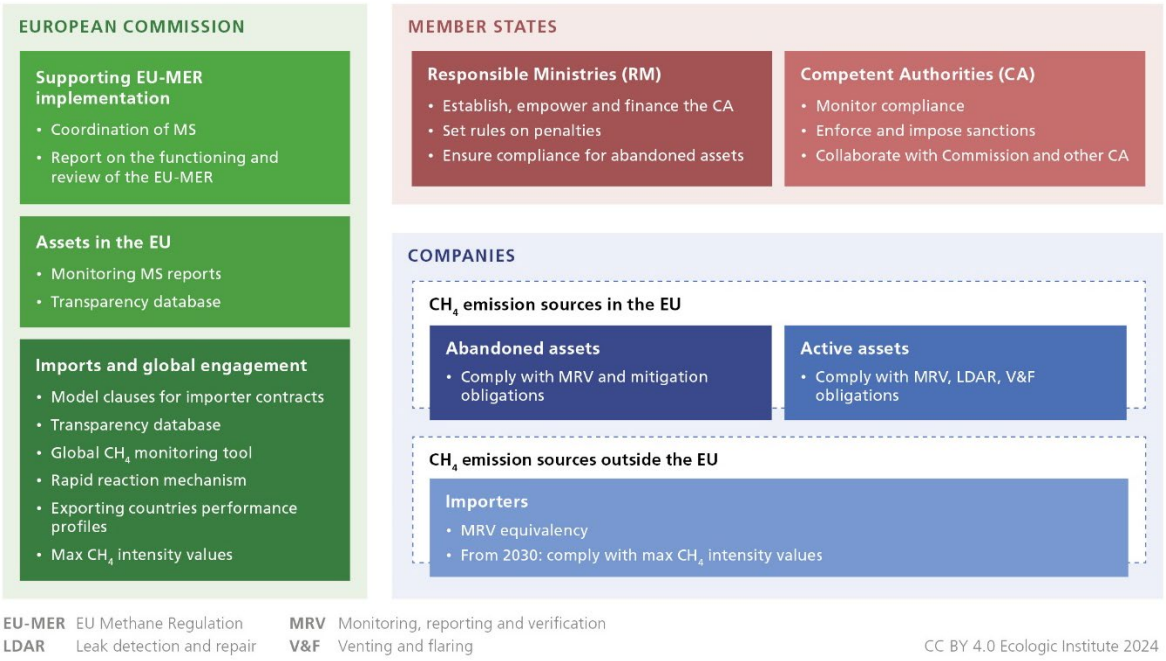
- Detailed **monitoring, reporting and verification (MRV)** must be implemented by asset operators and those legally responsible for closed and abandoned assets.
- Mandatory **leak detection and repair (LDAR)** measures.
- **Restrictions on venting and flaring**, which are prohibited except in specific circumstances. In all cases, flaring must comply with mandatory technical requirements.
- **Routine and non-routine inspections** to be conducted by the competent authorities (examined in detail in Chapter 6)
- Concerning **inactive, temporarily and permanently plugged, and abandoned oil and gas wells (IPAW), as well as closed and abandoned underground coal mines**: the Member States must (examined in detail in Chapter 5):
    - Establish, publish, and regularly update an **inventory** of such wells and mines.
    - **Identify the legal entities** responsible for the MRV, LDAR and other mitigation measures. If no responsible party with adequate financial means can be identified, **liability falls to the Member State**.
    - Ensure **systematic CH_4 measurements** are conducted, **mitigation plans** developed, and **mitigation measures** implemented.
- **Fossil fuels placed onto the EU market by importers** are subject to equivalent monitoring, reporting and verification obligations ("**MRV equivalence**") as if extracted in the EU. By 5 August 2028, importers must report the methane intensity of the production of the fossil energy products they import. For contracts concluded or renewed after 3 August 2024, these obligations must be incorporated into supply contracts. For older contracts, importers are required to undertake "all reasonable efforts" to require compliance from their contracting partners.
- For import contracts concluded or renewed after 5 August 2030, importers must demonstrate that imported products comply with **maximum methane intensity thresholds by 5 August 2030.** These thresholds will be established by the European Commission through a procedure defined in the EU-MER.
- The European Commission will publish a **methane transparency database,** including **methane performance profiles** of Member States, EU-based producers and importers, as well as of third countries from which the EU imports fossil fuels. Additionally, the Commission will establish a **global methane monitoring tool** and a **rapid reaction mechanism** to address super-emitting events.

- The Member States and their competent authorities must **publish extensive information on the EU-MER implementation**. The competent authorities must set up a procedure to **respond promptly to complaints concerning potential infringements of the EU MER** lodged by any natural or legal person.
- The **Member States must establish competent authorities** and **equip them with the necessary resources and powers** to carry out all tasks assigned to them under the EU-MER.
- By 5 August 2025, the Member States must **establish rules on penalties** for breaches of the EU-MER. These rules must adhere to detailed principles set out in the EU-MER.

Overview of actors involved in the EU-MER implementation

Figure 1 illustrates the **key actors for the EU-MER's implementation.** These are the responsible ministries and the competent authorities of the Member States, the operators and undertakings subject to EU-MER obligations and the European Commission.

Figure 1: EU-MER implementation: key actors and actions



Source: Piria, de la Vega, and Velten (2024)

Key milestones for national implementation in 2025-2027

The following table is a non-exhaustive list of the most important milestones for the implementation of the EU-MER in Czechia during the period until early 2027. It identifies who is responsible for each action.

Table 1 distinguishes between tasks assigned by the EU-MER to the Member States and those assigned to their competent authorities. In Czechia, the overall responsibility for implementing the EU-MER lies with the Ministry for the Environment (Ministerstvo životního prostředí České republiky - MŽP).

Chapter 2 provides a more detailed discussion of the respective roles of the MŽP and of the competent authorities. Chapters 5, 6, and 7 provide a more detailed description of the tasks and timelines related to inventories, inspections and other tasks.

Table 1: Selected deadlines for implementation in Czechia until early 2027

By when	Who	What
5 Feb 2025	MŽP	Notify Commission name and contact detail of their CAs
Spring 2025	CA	CA should be able to receive, analyse and react to a series of incoming reports: various venting and flaring notifications and reports the operators must submit from January 2025 onwards; LDAR programmes for active oil and gas wells the operators must submit by 5 May 2025; first reports the importers must submit by 5 May 2025. After these deadlines, a continuous inflow of reports must be dealt with by the CA.
5 Aug 2025	MŽP	Notify Commission of rules on penalties applicable to infringements and measures to implement those rules.
5 Aug 2025	MŽP	Publish complete inventories of IPAW. The inventories must be kept updated at least annually afterwards.
2025	MŽP	Identify legal entities with adequate financial means to fulfil the obligations concerning abandoned assets. There is no formal EU-MER deadline, but the sooner these entities are identified, the lower the costs for the public budgets and the more rapid the emission reductions.
Ca. Aug 2025	CA	Finalise lists of sites to be inspected and start routine inspections. This is no formal EU-MER deadline, but practically necessary to finalise the first round of inspections by May 2026.
5 Aug 2025	CA	Receive, analyse and react to reports that oil and gas sector operators must submit containing the quantification of source-level methane emissions as well as the reports to be submitted by coal mine and drainage station operators containing data in yearly source-level CH_4 emissions.
5 Nov 2025	CA	The reports as of the previous line must be published.
2025	CA	Ability to deal with complaints. The first complaints might be lodged in 2025, for example if operators and undertakings do not fulfil their reporting obligations.
2026	CA	Ability to carry out inspections following a complaint
5 Feb 2026	CA	Receive, analyse and react to reports that oil and gas sector operators must submit containing the quantification of source-level methane emissions for operated assets, based on measurement or, where direct measurement is not possible, at least specific emission factors based on source-level quantification or sampling.
5 May 2026	CA	The reports as of the previous line must be published.
5 May 2026	CA	Finalise first round of routine inspections
5 May 2026	MŽP	Report emissions from closed & abandoned coal mines and IPAW or ensure that the responsible entities do so.
31 May 2026	CA	Receive, analyse and react to the renewed reports by oil and gas sector as well as coal mine and drainage station operators.
5 Aug 2026	CA	Review and publish the reports on CH_4 emissions from closed & abandoned coal mines and IPAW.

5 Aug 2026	MŽP	Prepare mitigation plans for closed & abandoned coal mines and IPAW or ensure that the responsible entities do so.
5 Nov 2026	CA	Review and publish the mitigation plans for closed & abandoned coal mines and IPAW submitted by the responsible entities or by the responsible ministries.
Jan 2027	CA	Receive, analyse and react to reports that importers must submit to demonstrate that import supply contracts concluded or renewed after 5 August 2024 comply with the EU-MER obligations, and to demonstrate their reasonable efforts to require MRV-equivalence also with regard to older contracts.
5 Feb 2027	CA	Receive, analyse and react to reports that oil and gas sector operators must submit containing the quantification of source-level methane emissions for non-operated assets, based on measurement or, where direct measurement is not possible, at least specific emission factors based on source-level quantification or sampling.

2 Responsible ministry and competent authorities

The EU-MER systematically distinguishes between tasks assigned to Member States and those specifically assigned to their competent authorities. Table 2 presents an overview of the respective functions and tasks as defined by the EU-MER.

Table 2: Overview of EU-MER tasks assigned to the MŽP and to the Czech CAs

Tasks of the MŽP	Tasks of the competent authorities
Policy making: ▪ Set up the CA and ensure that they have adequate powers and resources. ▪ Lay down the penalty regime and take all measures to enforce it. ▪ Ensure that certification, accreditation schemes or equivalent qualification schemes are available. ▪ Report to and collaborate with the EU Commission, publish specific information. Operational: For disused[1], closed, and abandoned oil and gas wells and coal mines, MS must: ▪ Set up inventories. ▪ Identify solvent responsible parties, where possible. ▪ Develop mitigation plans and implement mitigation measures and report on them to the CA (or ensure that "responsible parties" do so).	▪ Plan and carry out routine and non-routine inspections. ▪ Analyse and evaluate incoming reports submitted by operators and undertakings subject to EU-MER obligations. ▪ Take decisions on a number of technical issues, including monitoring and reporting, leak detection and repair programmes, venting and flaring reports, exemptions. ▪ Impose penalties to sanction non-compliant behaviour. ▪ Process and react to complaints ▪ Produce a series of reports and notifications to the EU Commission, publish specific information. ▪ Cooperate with the CA of other MS and with the EU Commission.

The EU-MER states that each EU Member State (MS) must[2] "*designate one or more competent authorities responsible for monitoring and enforcing the application*" of the EU-MER. Each MS must notify the Commission of the CA's name(s) and contact details by 5 February 2025. The MS must ensure that the CA have adequate powers and resources to perform the EU-MER obligations [Art 4].

[1] For the sake of brevity, we use the "disused assets" to refer at once to the following three categories defined in the EU-MER: "abandoned underground coal mines" (AUCM); "closed underground coal mines" (CUCM); "inactive, temporarily or permanently plugged and abandoned oil and gas wells" (IPAW). Certain provisions are common or similar to all three categories of assets, others are specific.

[2] For the sake of clarity, we use "must" instead of the original wording "shall" for all EU-MER provisions where "shall" actually means "must". See: Felici, A. (2012). 'Shall' ambiguities in EU legislative texts. Comparative Legilinguistics 10 (January):51-66. https://doi.org/10.14746/cl.2012.10.04 .

At the time of finalisation of this report (31 March 2025), we are not aware that the Czech government has published or notified to the Commission a formal act defining the competent authority or authorities responsible for the EU-MER implementation in Czechia.

It is regrettable that the first EU-MER implementation deadline has already faced significant delays, despite all Member States having known since at least mid-2023 that one or more competent authorities needed to be designated. In light of the extensive responsibilities these authorities will bear, as outlined in this report, it is urgent that they are appointed without further delay and begin practical implementation immediately.

According to informal sources, the most likely scenario is that the CAs tasks will be assigned to two administrative organisations.

- The responsibility for implementing the EU-MER regarding coal, oil and gas extraction activities might be assigned to the Czech Mining Authority (Český Báňský úřad). The Czech Mining Authority is a state administrative organisation (one of the so-called "central governmental bodies") established by the Ministry of Industry and Trade. The chairman is appointed by the government.
- The responsibility for implementing the EU-MER with regard to gas and oil infrastructure might be assigned to the State Energy Inspection. The State Energy Inspection is an administrative office of the Czech Republic and is also subordinate to the Ministry of Industry and Trade.
- It remains unclear who will be responsible for the implementation of the EU-MER provisions concerning fossil fuel imports. According to rumours, this task could be assigned to the Customs Administration of the Czech Republic.

Presumably, the CA or relevant bodies will report to the MŽP, as it carries the overall responsibility for implementing the EU-MER. The Industrial Emission Directive 2010/75/EU on industrial emissions (pollution prevention and control) also falls under the responsibility of the Ministry of the Environment. As a result, some overlap in inspection activities is to be expected. The main body responsible for checking compliance with emission standards is the Czech Environmental Inspection, whose role under the EU-MER is yet unknown.

Principles of governance in the EU-MER implementation

The mandate of the CAs is to enforce the EU-MER provisions. However, some of their functions and tasks may be affected by tensions between this mandate and other policy or shareholder goals pursued by executive institutions, including the overseeing ministry MŽP, which establishes and controls the CA.

The CAs should maintain a certain degree of autonomy from MŽP and their political superiors in their day-to-day operations to shield them from potential interference in the following risk areas:

- **Favouritism for state owned enterprises**: the CA may be required to impose sanctions or costly remedial actions on private law entities that may include state-owned enterprises (see Chapter 3). Even before such decisions may have to be made, the CA is responsible for evaluating reports submitted by the fully or partially state-owned enterprises and inspecting their sites and premises. In such cases, there may be conflicting priorities between the effective implementation of the EU-MER and another government objectives, such as the profitability of the state-owned enterprise.
- **Monitoring government compliance:** as described in Chapter 6, the MS may have various measurement and mitigation obligations regarding disused fossil fuel extraction

sites. The CA is responsible for monitoring and evaluating these activities. In some cases, the CA may find itself monitoring the very ministry that has assigned the task to them.

- **Risk of "enforcement venue shopping" by importers**: under the EU-MER, importers must submit reports to the CA of the MS where their legal entity is established [Art. 27.1], not the CA of the country where the fossil fuels physically enter the Union. If importers perceive that some CAs are enforcing the EU-MER provisions more leniently, they may shift their import contracts to subsidiaries in MS with laxer enforcement. While CAs are required to inspect domestic operators, they have discretion over whether to inspect importers, unless a substantiated complaint is made. National or regional governments may seek to attract importers, potentially pressuring the CA to adopt a more lenient enforcement approach to increase tax revenue.
- **Conflicting government priorities**: some policy makers may view the EU-MER mandate as conflicting with other goals, such as energy security or low energy costs. Therefore, they might exert pressure on the CA to not fully implement the EU-MER

For CA to perform their duties effectively, they must be shielded from undue political or executive pressure. Their day-to-day operations should be guided by their mandate, not by orders from political superiors. This is supported by the EU-MER text, which requires Member States to establish CAs and equip them with the necessary powers and resources.

While the level of autonomy required for EU-MER CAs may be lower than that of, for example, energy regulators, they must still function with operational independence. Their planning and execution of tasks should be guided exclusively by their EU-MER mandate and remain free from any conflicting interests. Thus, CAs should maintain an arms-length relationship with political authorities in both the executive and legislative branches.

Based on **OECD recommendations** for the independence of regulatory authorities (OECD 2017), an arms-length relationship between government and CAs is key to safeguarding their operational autonomy. This can be achieved through:

- **Delegation**: CAs should be established as separate structures, with oversight delegated to administrative bodies other than the founding ministries. Instead of being units within ministries, CAs should operate as parts of existing (or, where needed, new) executive agencies to increase distance from political influence.
- **Stable financing**: Securing multi-annual budgets helps reduce political leverage, preventing governments from influencing CAs by cutting funds, particularly for EU-MER enforcement units.
- **Accountability and transparency**: Clear mechanisms for accountability and transparency are essential. EU-MER already requires the publication of most reports. Proper implementation can reduce favouritism by making information publicly accessible and open to scrutiny.
- **Compliance rules**: Robust compliance rules should define codes of conduct for all staff, including outsourced personnel. CAs should also foster a culture of independence through recruitment, training, and operational freedom.

Certain functions of the CA and of the overseeing ministry are **inherently vulnerable to undue influence or attempted corruption** by private operators subject to EU-MER obligations. Key risk areas include:

- Evaluating reports and mitigation plans submitted by companies subject to EU-MER obligations (see Chapter 4 and Annex below);

- Conducting inspections of operators and importers (see Chapter 5);
- Issuing decisions that may impose significant costs on operators and importers, particularly regarding mandatory remedial actions and sanctions (see Chapter 4 and Annex 2);
- Handling complaints (Chapter 4).

Similar risks apply to several tasks of the responsible ministries (RMs):

- Identifying responsible parties (RP) liable for mitigation costs related to disused assets (see Chapter 6);
- Verifying claims by the RP's that they lack "*adequate financial means*" to meet these obligations; [Art 18(8) EU-MER]
- Assessing whether sanctions imposed by a CA would "*endanger the security of energy supply*" [Art 33(2)].

If undue influence or corruption affects CA or RM actions in these areas, it would directly or indirectly undermine climate change mitigation.

Even if the state assumes liability from an RP and executes mitigation measures promptly, it incurs fiscal costs, potentially limiting funds available for other climate efforts. It also burdens the public budget and harms credibility. Allowing a responsible party to evade liability may create the false impression that climate mitigation proceeds unaffected—yet even prompt state intervention carries financial consequences and reputational risks.

Identifying high-risk functions is a crucial first step in preventing undue influence and corruption within public and private entities. This analysis aims to support those less familiar with EU-MER in recognising vulnerable areas. As in other policy domains, EU-MER contains inherent risks requiring resilience strategies for both CAs and RMs.

At national, EU and international levels, numerous resources address how to prevent corruption and undue influence. For example, the OECD recommends the following preventive measures (OECD 2017):

- **Compliance rules and procedures**: Clear rules should guide staff conduct, building on existing legal obligations. These should also cover post-employment activities (e.g. "revolving door" scenarios).
- **Recruiting practices**: Staff should be selected based on skills and ethics, with a strong focus on integrity and independence during the hiring process.
- **Incentives**: Adequate salaries and career prospects within CAs help deter undue influence.
- **Whistleblowing:** CAs should implement whistleblowing procedures aligned with the EU Whistleblowing Directive.

In performing their duties under this Regulation, the Commission, CAs and verifiers should consider and utilise internationally available information, such as that from the International Methane Emissions Observatory (IMEO), particularly regarding data aggregation methodologies, verification of methodologies and statistical processes used by operators and importers to quantify CH_4 emissions in their reports. Relevant reference criteria may include the Oil and Gas Methane Partnership 2.0 (OGMP 2.0) reporting framework, technical guidance documents and reporting templates.

3 Sources of CH_4 emissions in the Czech energy sector

To implement the EU-MER, the Czech government must ensure that the responsible ministry and the competent authorities have adequate resources and powers to fulfil their tasks. This includes enabling the responsible ministry to establish an inventory of disused fossil fuel extraction assets and granting them the ability to carry out CH_4 measurements and mitigation measures when the MŽP is designated as the responsible party for such disused assets (the conditions under which this applies are discussed in Chapter 6). Competent authorities must also be equipped to analyse and review incoming MRV, LDAR, and mitigation reports, make informed decisions, and conduct the required inspections.

To determine the resources required, the responsible ministry must first estimate the scope of the tasks ahead. To support this estimation, this section provides a short overview of available information on CH_4 emissions from the energy sector, the types and number of relevant sites, and the relevant market players.

Methane emissions from the energy sector according to the National GHG Inventory

In its National Inventory Report submitted to the UNFCCC, the Ministry of the Environment of the Czech Republic (2024) reported that in 2022, 67 kt CH_4 were emitted from active and disused underground and surface coal mines, while 18.4 kt CH_4 were released from the extraction, processing, transmission and distribution of oil and gas.

Much higher CH_4 emissions according to other studies

However, other sources suggest that CH_4 emissions in Czechia may be significantly underestimated. The Global Energy Monitor (2024) estimates that CH_4 emissions from coal mines in 2021 were probably more than twice as high as those reported in the National Inventory Report, reaching approximately 80 kt CH_4 from active mines and 64 kt CH_4 from disused ones[3]. Although not specific to Czechia, the IEA (2022) estimates that methane emissions from the energy sector are usually about 70% higher than official figures suggest.

Overview on the CH_4 emission sources to be monitored by the Czech authorities

Coal mines:

According to the Czech Geological Survey (2025), there are 5,897 active and disused coal shafts and pits in the Czech Republic. Of these, 3,140 are related to hard coal and 2,757 are related to lignite. In contrast, the GEM (2025) reports 6 operating and 11 retired coal mines in Czechia. This discrepancy arises because the data from the Czech Geological Survey are more granular and include numerous historical pits and shafts closed before World War II. Under Article 25(2) of the EU-MER, coal mines that ceased operations before 5 May 1954 fall outside the regulation's scope. Most of the sites relevant to EU-MER implementation are in the Ústí nad Labem Region (lignite) and in the Moravian-Silesian Region (hard coal). The most significant administrators include DIAMO s.p. and OKD a.s.

At present, there are no publicly available measurements or scientific quantifications of CH_4 emissions from individual coal mines in Czechia. In its National Inventory Report, the Ministry

[3] The GEM (2024c) estimates that disused coal mines emitted 90 million cubic metres (MCM) of methane in 2021. Assuming that 1 MCM of CH_4 corresponds to approximately 0.714 kt of CH_4, this translates to roughly 64 kt of CH_4. See: https://globalenergymonitor.org/report/the-hidden-threat-abandoned-coal-mine-methane-emissions-in-the-eu/

of the Environment of the Czech Republic (2024) predominantly relies on nationwide standard emission factors provided by the IPCC to estimate CH_4 emissions from coal.[4] This suggests that region- or asset-specific emission factors are likely unknown to the Czech authorities, highlighting the need for asset-level data collection.

Oil and gas wells:

The Czech Geological Survey (2025a) collects data on both **active and disused oil** and gas wells through its Borehole Survey, with records dating back to 1917. This survey covers 2,309 boreholes associated with oil and gas reservoirs in Czechia, but it does not provide information on their ownership or indicate which wells are active or disused. However, given that the Czech Mining Authority (2024) lists only 135 wells as currently active, it can be assumed that the vast majority are disused. The active wells, operated by eight private companies in northern and southern Moravia, have a relatively modest output, as the majority of oil and gas is imported into Czechia (Ministry of the Environment of the Czech Republic 2024).

Similarly to coal, no publicly available datasets exist to quantify CH_4 emissions from individual oil and gas wells in Czechia. In the National Inventory Report, CH_4 emissions from oil and gas production, venting, flaring, and distribution are determined solely using nationwide standard emission factors provided by the IPCC (Ministry of the Environment of the Czech Republic 2024). Therefore, it is likely that monitoring and reporting structures for CH_4 emissions are currently insufficient and will need to be established for most assets.

Gas infrastructure

The Czech **gas transmission system** consists of more than 4,000 km of pipelines with nominal pressures ranging from 4.0 to 8.5 MPa. Moreover, it comprises 5 compressor stations (located in Břeclav, Kouřim, Kralice, Otvice and Veselí nad Lužnicí), equipped with 36 turbines with a total mechanical capacity of 281 MW. In addition, there are 100 transfer stations at the interface with gas distribution networks, large customers directly connected to the transmission grids, and underground gas storage facilities. The transmission system is operated by the company NET4GAS, a subsidiary of ČEPS, a company wholly owned by the Czech State and controlled by the Ministry of Industry and Trade (NET4GAS 2025).

In Czechia there are three gas distribution system operators:

- GasNet operates the gas distribution networks in most regions of Czechia. It manages a total of approximately 65,000 km of gas pipelines and delivers around 7.5 billion m^3 of natural gas annually through its system. We have been unable to find a figure for the number of compressor units or their total installed capacity on GasNet's website. However, GasNet highlights the deployment of an innovative mobile transfer compressor used to reduce methane emissions during maintenance and in emergency operations. In a recent transaction, the ČEZ Group acquired a controlling stake (55.21%) in GasNet, making ČEZ the majority owner of the company (ČEZ Group 2024). GasNet is currently the only Czech operator participating in the OGMP 2.0 reporting framework.
- Gas Distribution s.r.o. operates the gas distribution network in the Jihočeský kraj (South Bohemia) and in a part of the Kraje Vysočina (the Vysočina Region). It manages approximately 2,800 km of gas pipelines and 22 compressor stations with a combined capacity of about 210 MW. Gas Distribution s.r.o. is a private company owned by the E.ON group.

[4] With the exception of underground hard coal mines, where three emission factors are available for different time periods.

- The company PPD, owned by the City of Prague, operates the gas distribution network in Prague. PPD operates a gas pipeline network spanning 4,462 km, with 225 regulation stations and 15,184 domestic gas pressure regulators.

According to the Gas Storage Europe database, as of July 2021, there are 13 gas storage facilities operational in Czechia, with one under construction scheduled to enter operation in 2021, and one planned to enter operation in 2025 (GIE 2021). In practice, some of these facilities are the result of expansions and located in the same place. Most of them are in depleting fields, one in a rock cavern and one in an aquifer. Their total withdrawal capacity is 814 GWh/day. The storage facility Dolní Bojanovice serves the Slovak infrastructure but is located in Czechia and will therefore be under the responsibility of the Czech competent authority.

Imports of coal, oil and gas:

We have been unable to find publicly available data on the exact number of oil, gas and coal importers in Czechia. Nevertheless, the responsible competent authority should be prepared to receive reports from importers, and to evaluate the underlying CH_4 intensity and compliance with MRV equivalence from the producing countries. According to the IEA (2023), in 2023, 98% of the oil, 98% of the gas, and 14% of the coal consumed in Czechia were imported. The primary countries of origin include Norway, Poland and Germany within the European Economic Area, and Russia, Azerbaijan, Kazakhstan, the United States and Canada outside it (Eurostat 2025a; 2025b; 2025c).

According to the EU-MER, importers must report to the competent authorities of the Member States where they are legally established. Art 2(59) defines an "importer" as "*a natural or legal person who, in the course of a commercial activity, places crude oil, natural gas or coal originating from a third country on the Union market (…)".* Consequently, if fossil fuels entering Czech territory are produced in another EU MS, they are not considered imports under the EU-MER and are therefore not subject to Chapter 5 (Art. 27-31). Instead, they fall under the general provisions of Chapters 3 and 4, with implementation monitored by the CA of the MS where the fossil fuel is produced.

Conversely, it is important to note that the Czech CA may need to evaluate reports from, and carry out inspections of, importers even when fossil fuels enter Czech territory from another EU Member State. For example, consider a Czech company purchasing an LNG cargo that enters EU territory via a terminal in Germany. If the Czech buyer acquires the gas directly from a trader established outside the EU, the Czech buyer is considered an importer under the EU-MER and must submit reports to the Czech CA in accordance with Articles 27–29 of the EU MER. However, if the Czech buyer contracts with a trader established in another EU Member State, the Czech company is not considered an importer under the EU-MER. In such a case, the obligation to report falls on the trader, who must submit the report to the CA of the EU Member State where it is legally established. Notably, this trader does not need to be legally established in Germany; it may be established in any EU Member State and simply use an LNG terminal located in Germany.

As another example, consider a Czech company purchasing hard coal produced in Poland. In this case, the Czech buyer is not classified as an importer under the EU-MER. All provisions related to MRV, as well as mitigation measures, remain applicable. However, the responsibility for enforcement lies with the competent authority of Poland, where the fossil fuel is produced.

4 Monitoring, supporting and enforcing implementation

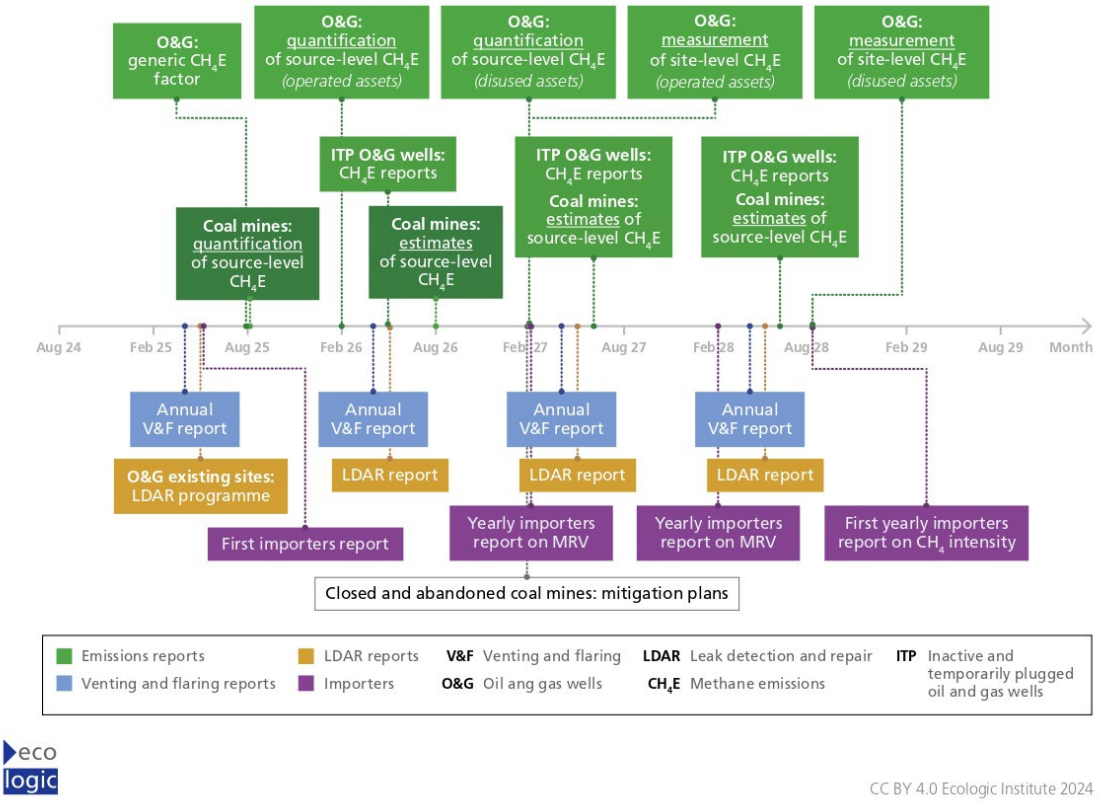
This chapter outlines key duties of the CAs and the responsible ministries in supporting, monitoring, and enforcing the EU-MER implementation.

Two major tasks are addressed separately in the following chapters: The first is the establishment of inventories of disused fossil extraction sites, which falls under the responsibility of the ministries. The second concerns the planning and execution of inspections, which is the responsibility of the CAs.

CAs to evaluate technical reports submitted by regulated entities

The CA will receive and must evaluate a range of technical reports submitted by operators of active assets, by importers, and by entities responsible for disused extraction sites. These reports include emissions monitoring, reporting and verification reports, LDAR reports, venting and flaring reports, reports on the mitigation plans and on the implemented mitigation measures, and import-related reports. A full list of reports to be submitted to and evaluated by the CA is provided in Annex 1.

Figure 2: Timeline of selected incoming reports to be evaluated by the CA



The effectiveness of the EU Methane Emissions Regulation depends critically on the technical competence, institutional independence, and preparedness of Competent Authorities across Member States. These authorities are central to verifying emissions data, overseeing mitigation obligations, and ensuring the credibility of the entire regulatory framework.

Competent authorities play a central role in ensuring that reported emissions data under monitoring and reporting requirements in Article 12 are technically sound, consistently verified and

comparable across operators and Member States. This supervisory role is particularly important in the context of imports, where domestic enforcement mechanisms will need to align with international data and verification standards. As global methane mitigation strategies are looking towards performance-based economic instruments, robust and accurate monitoring, reporting and verification becomes essential. For the intensity standard on domestic and imported fossil fuels to be credible and effective, this MRV enforcement must be ambitious. For this, CAs require strong technical capacity in emissions measurement, data reconciliation, and the evaluation of advanced technologies. They must also be equipped to independently review and, where needed, challenge verification statements provided by accredited parties.

Figure 2 does not include various reports related to irregular occurrences, such as notifications of exceptional venting or flaring events, or justifications for exceptional delays in implementing certain measures. In practice, the Czech CAs are likely to face a continuous flow of incoming reports. The recurring cycle of reports to be submitted by operators and undertakings subject to EU-MER obligations, followed by reviews or evaluations conducted by the CA, are yearly obligations that extend beyond the timeframe shown in the chart.

CAs to take enforcement decisions

Based on these reports and any other evidence, the CAs are required to make various decisions, some of which may have significant implications for the operators and undertakings concerned, as well as for the effectiveness of CH_4 mitigation. These technical decisions are among the most important tasks for ensuring the effective implementation of the EU-MER, and include:

- Approving, rejecting or requiring amendments to LDAR programmes and schedules
- Requiring modifications of the plans to comply with venting and flaring requirements
- Imposing remedial actions and/or penalties against non-compliant entities
- Exempting individual operators, undertakings or entities from certain obligations, under precisely defined conditions

Given the significance of these decisions, it is essential that the CAs are equipped with the necessary resources and skills to enable substantiated and timely decision-making. This issue is examined further in Chapter 7.

A full list of enforcement decisions to be taken by the CA is available in Annex 2.

Outgoing reports and publications to be produced by the CA

The EU-MER requires CAs to publish specific information and submit reports and notifications to the European Commission. Certain reports must be made publicly available on a designated website. Where information is withheld under Art 4 of Directive 2003/4/EC on public access to environmental information, the CA must indicate the type of information withheld and the reason for its confidentiality [Art 5(4)].

A full list of the outgoing reports, notifications and publications is provided in Annex 3.

Cooperation at the EU level and with third countries

Beyond submitting notifications to the European Commission as outlined in the previous paragraph, CAs must also cooperate at the EU level and with third countries. Each CA must establish a contact point to support networking with other Member States' CAs, as coordinated by the Commission [Art 4(2)]. CAs are required to cooperate with each other and with the Commission and may also engage with third-country authorities [Art 5(3)]. Regarding penalties, they must *"cooperate closely to ensure that their powers are exercised, and that the administrative*

penalties and administrative measures they impose are designed and applied in an effective and consistent way across the Union" [33(4)]. The Commission may request information from CAs and MS to fulfil its duties under the EU-MER.

Dealing with complaints

The CA must be able to receive written complaints from natural or legal persons regarding potential breaches of the EU-MER requirements [Art 7(1)]. If a complaint is substantiated, the CA must carry out a non-routine inspection [Art 6(4)]. However, the EU-MER does not define criteria to assess whether a complaint is substantiated.

If the CA decides not to investigate due to insufficient evidence, it must inform the complainant "*within a reasonable time but not later than 2 months*". The wording implies that serious, well-substantiated complaints should be processed more quickly [Art 7(3)]. If the CA considers a complaint insufficiently substantiated to warrant an inspection, the complainant has the right to challenge this assessment in court and demonstrate that the complaint was substantiated.

"*Where complaints that are not sufficiently substantiated are repeatedly lodged and for that reason deemed abusive*", the CA has no obligation to react [Art 7(3)]. The CA is not obliged to act on repeated, unsubstantiated complaints deemed abusive [Art. 7(3)]. The CA must publish indicative periods to take a decision on complaints [Art 7(5)]. Complainants must be kept informed of the steps taken and any appropriate alternative forms of redress, such as access to national courts [Art. 7(4)]. Additionally, the CA must publish indicative timelines for decisions on complaints [Art. 7(5)].

Laying down the penalty regime

The penalty regime for EU-MER infringements is defined in Art 33. Like other recent EU legislation, it includes more detailed provisions than earlier laws, but still leaves significant discretion to Member States. Each MS must lay down its own penalty rules and ensure their effective implementation [Art 33(1)]. These national rules must fully comply with EU-MER requirements; failure to do so may trigger an infringement procedure by the European Commission.

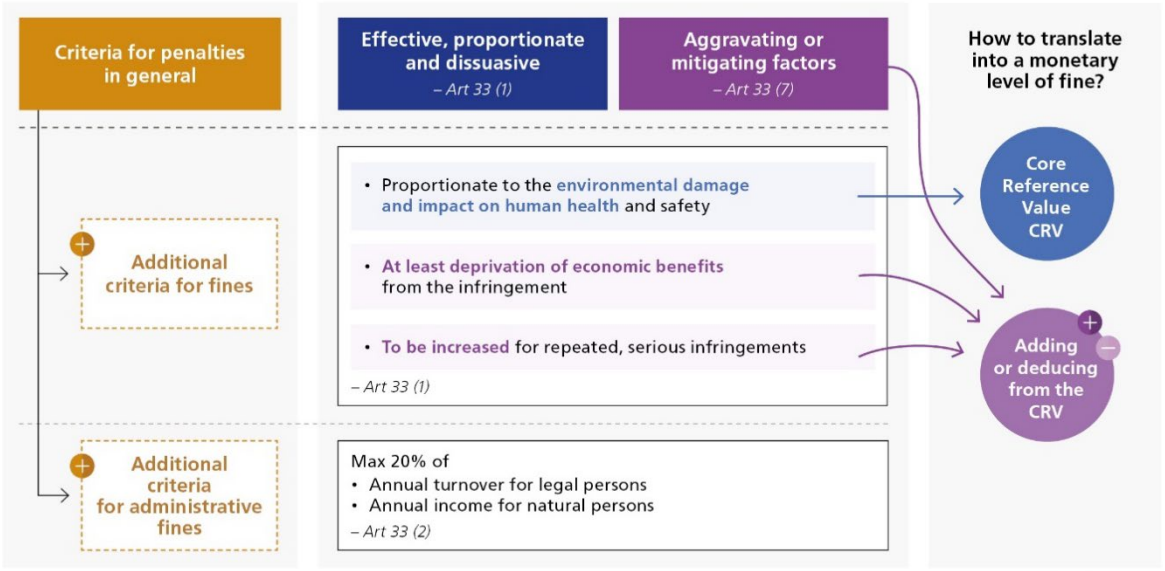
Once national rules are in place, the CAs – and in some Member States, the courts – have broad discretion in enforcement. The national rules and the way how this discretion is applied will strongly influence the effectiveness of EU-MER enforcement and the resulting CH_4 emissions reductions.

The EU-MER adopts a "toolbox approach" to penalties that combines fines, periodic penalty payments, and administrative measures. Member States must empower their CAs to impose at least a range of administrative penalties, including fines.

Each Member State must now operationalise the complex provisions of Art 33. A detailed analysis of the penalty framework, including suggestions for national implementation, is available in Piria, Sina and Dück (2024). Here, we summarise only the key findings of that study, as illustrated in Figure 3 and Figure 4.

The top section of Figure 3 outlines the general criteria that apply to all kind of penalties imposed for infringements of EU-MER provisions: penalties must be effective, proportionate and dissuasive [Art 33(1)]. In additional to this trias of principles, Art 33(7) specifies a mandatory list of aggravating or mitigating factors that Member States must consider when determining penalty levels. These factors are shown on the right-hand side of Figure 4.

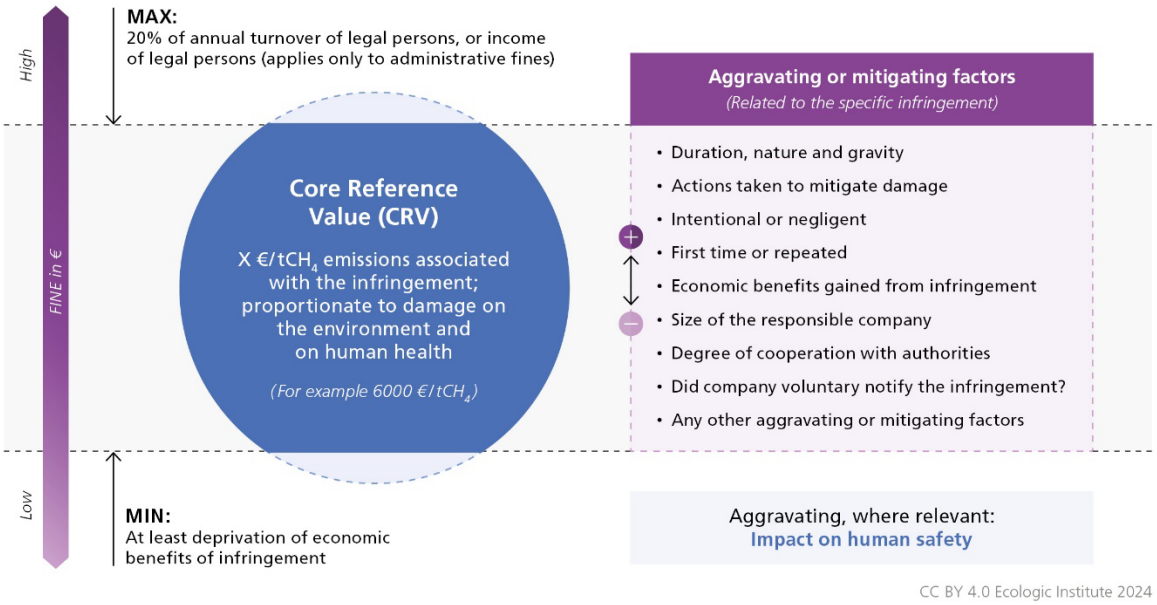
Figure 3: Criteria for the level of penalties



As safety impacts will be rare, fine levels should, in most cases, be based on the environmental damage and the impact on human health. Accordingly, penalties should be proportional to the volume of CH_4 emissions directly or indirectly linked with the infringement.

Building on this principle, Piria, Sina and Dück (2024) – after considering several potential anchor points – propose a Core Reference Value (CRV) of 6,000 EUR per tonne of CH_4. This figure aligns with the penalty regime foreseen by the EU ETS Directive to sanction the behaviour of operators who do not surrender sufficient emission allowances, applying a CH_4/CO_2 equivalency factor of 29.8, quoted in recital (2) of the EU-MER. This standard fine level must then be adjusted for aggravating or mitigating factors, and must remain within the minimum and maximum thresholds defined by the EU-MER.

Figure 4: Core Reference Value (CRV) and other criteria to determine fine levels



Certification, accreditation schemes or equivalent qualification schemes

MS must "*ensure that certification, accreditation schemes or equivalent qualification schemes, including suitable training programmes, are available*" [Art 14(16)].

This implies the need to review existing certification and accreditation procedures, and institutional setting in Czechia to ensure that the inspection and verification activities required by Art. 8 and 9 of the EU-MER can be carried out effectively. In particular, accrediting qualified verifiers is essential to ensure that operators can meet the Regulation's MRV provisions.MRV requirements under article 12 require that "Before submitting the report to the competent authorities, operators and undertakings shall ensure that the report is assessed by a verifier and includes a verification statement issued in accordance with Article 8."

Verifiers provide the necessary assurance that emissions data submitted by operators is accurate, complete, and compliant with regulatory requirements. As methane mitigation efforts increasingly rely on performance-based policy instruments, the quality of verification activities directly influences the effectiveness and credibility of the regulation, both for domestic production and imported fossil fuels.

Verifiers are accredited at the Member State level, typically through national accreditation bodies. While this approach enables alignment with national regulatory structures, it also introduces the risk of fragmentation. Without coordinated oversight and common quality standards, verification practices may diverge across Member States, potentially leading to inconsistent enforcement and difficulties in comparing data. To mitigate this, Member States should follow harmonised EU-level accreditation protocols and ensure verifiers are trained and regularly evaluated.

The technical complexity of methane emissions measurement – particularly with the use of source-level and site-level measurements as well as reconciliation processes – requires verifiers to have strong technical competence. This includes the ability to assess the appropriateness of methodologies and technology used, the representativeness of sampling strategies including sufficient frequency, and the validity of uncertainty estimates.

In addition to the work of verifiers, CAs must retain the ability to independently review and reassess reports, even after formal verification. This approach provides a safeguard against inconsistent or insufficient verification and helps ensure uniform enforcement across the EU. For this to be effective, CAs must also possess the technical capacity to assess emissions data and the quality of verification activities.

5 Inspections

Rationale and overall principles

As shown in Figure 1, most of the actual MRV and mitigation activities required under the EU-MER are to be carried out by operators of oil and gas wells, coal mines, gas infrastructure, and by fossil fuel importers.

One of the main tasks for the competent authorities is to organise inspections to ensure compliance. These may be carried out directly by the CA or outsourced to qualified, independent service providers.

Inspection requirements and procedures under the EU-MER

The EU-MER mandates routine and non-routine inspections to verify and promote compliance.

Routine inspections are envisioned for operators and undertakings with relevant assets in the EU, but not for importers, who are only subject to non-routine inspections [Art 6(1)].

The first routine inspections must be completed by 5 May 2026. Afterwards, routine inspections must be carried out at least every 3 years. The programmes for routine inspections must be based on a risk assessment conducted by the CA, which should take into account "*the risks associated with each site, such as environmental risk, including the cumulative impact of all methane emissions as a pollutant, human safety and health risks, as well as any identified breaches of this Regulation*". If a routine inspection reveals a serious breach of obligations, the next one must follow within 10 months [Art 6(3)].

According to Art 6(4), the CA must carry out non-routine inspections to:

- investigate substantiated complaints;
- ensure that the operators and undertakings subject to EU-MER obligations have implemented specific lead detection and repair (LDAR) and other mitigation measures;
- verify compliance by importers.

The non-routine inspection after a substantiated complaint is to be carried out as soon as possible and within a maximum period of 10 months following the reception of the complaint.

According to Art 6(2), the inspections must include the following elements, where relevant to the specific case:

- site checks or field audits;
- examination of documentation and records that demonstrate compliance, including MRV reports submitted by operators, undertakings and importers;
- CH_4 emissions detection and concentration measurements;
- any follow-up action to check and promote compliance of sites with the requirements of EU-MER.

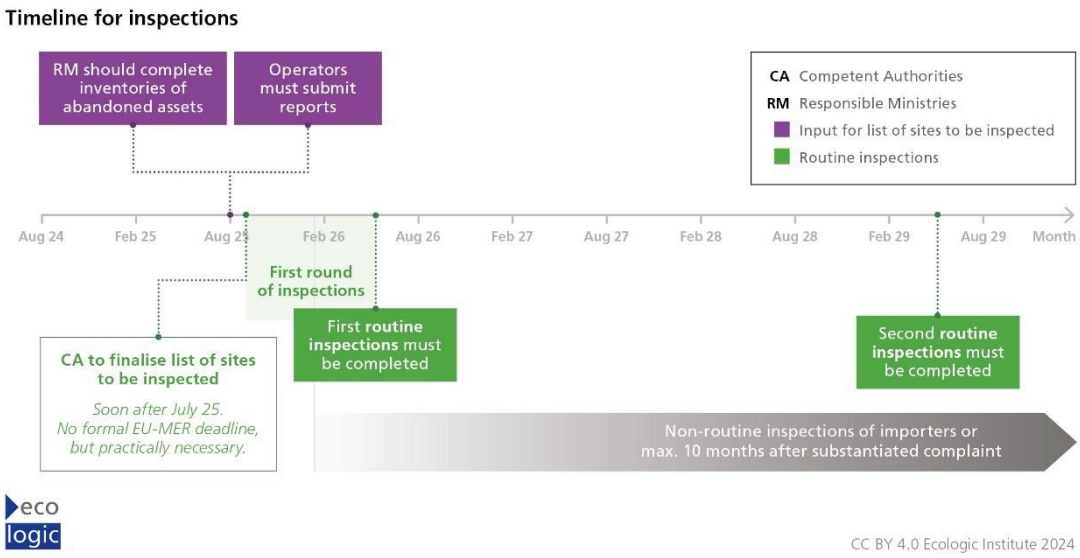
The CA must prepare reports that describe how the inspections have been carried out, present their findings and set out recommendations for further action to be taken by operators and undertakings subject to EU-MER obligations [Art 6(5)]. If the inspection reveals a non-compliance, the CA may set a deadline by which the operators and undertakings must take action to comply [Art 6(6)].

According to Art 6(2), the inspections can be undertaken "*by or on behalf*" of the CA. According to Art 6(7), to provide specialised expertise to support the CA when carrying out inspections, the MS "*may enter into formal agreements with relevant institutions, bodies, agencies or services of the Union or with other Member States or other appropriate intergovernmental organisations or public bodies*", provided that their objectivity may not be compromised by a conflict of interest [Art 6(7)].

Timeline

Figure 5 presents the most important milestones related to routine and non-routine inspections of active and disused sites as well as importers of oil, gas and coal under the EU-MER. Further details are provided in the preceding text.

Figure 5: Inspection timeline for active and disused sites



The timeline shows a high workload during the first 21 months of implementation, from August 2024 to May 2026, and a significantly lower workload afterwards.

Implementing steps

The inspection process involves three main steps under responsibility of the CA:

1) Compiling a list of all sites, operators and undertakings subject to inspections
2) Setting up programmes for routine inspections and capacity for non-routine inspections
3) Carrying out the inspections

First step: the list of sites, operators and undertakings subject to inspection will include three elements: all active assets subject to EU-MER obligations; importers established in Czechia; disused extraction sites documented in the inventories discussed above.

While the EU-MER sets no formal deadline for completing this list, it should be finalised as soon as possible to allow effective planning of the first round of routine inspections, which must be completed by 5 May 2026.

Second step: the programmes for routine inspections should aim to inspect all sites by 5 May 2026, as required by the EU-MER, and follow the established timeline afterwards. Site prioritisation should be based on a risk assessment, requiring the CA to develop a methodology to

weigh the risk criteria outlined in the EU-MER. Potential criteria for assessing risks include site throughput (i.e., volume of fossil fuels produced or processed), historical CH_4 emission rates, proximity to residential or environmentally sensitive areas, infrastructure age and condition, records of past infringements, and potential human safety and health risks. Practical aspects must also be considered, including logistics, and the availability of in-house or external specialised staff and equipment.

To be effective, the inspection programmes should maintain a level of unpredictability for the inspected entities. Some non-routine inspections can also be prepared in advance, for instance in response to complaints or to monitor compliance with CA-imposed deadlines for implementing LDAR measures.

The CA must also establish protocols for conducting inspections based on objective criteria to safeguard the integrity of the process. These criteria may include risk profiles of site categories and operators, the consistency and plausibility of MRV reports, and elements of randomisation to reduce predictability. Planning should also include decisions on whether to involve external service providers.

Ideally, this second step should be completed by summer 2025 to allow sufficient time for the first round of routine inspections, which must be completed by 5 May 2026. However, if the full inspection programme is not yet finalised, routine inspections can and should begin as soon as the structure and procedures are established.

Third step: If inspections are carried out by in-house personnel, the CA must manage the entire process, including recruiting and training specialised staff, procuring or leasing necessary equipment, and handling logistics.

If inspection activities are partly or fully outsourced, the CA remains responsible for procuring and supervising external inspectors. Core tasks – such as issuing official inspection reports and any resulting administrative orders – cannot be outsourced, as they fall strictly within the CA's mandate.

Since EU-MER inspections may lead to tangible sanctions, their outcomes and procedures may be challenged in court. Therefore, all CA procedures must be legally robust, and the CA must be equipped to defend its actions and decisions.

Implementing inspections in Czechia

To date, the Czech government has not formally assigned inspection responsibilities under the EU-MER. However, two authorities with analogous responsibilities under other EU legislation may be well-positioned to take on these roles:

1. The Czech Environmental Inspection, responsible for enforcing domestic pollution prevention and control obligations under the EU Industrial Emissions Directive, could be assigned to manage the inspections of CH_4 emitting sites in Czechia.
2. The Czech Customs Administration (Celní správa), which verifies import reports under the Carbon Border Adjustment Mechanism (CBAM Regulation 2023/956/EU), could be tasked with inspecting importers.

Based on the analysis provided in this chapter, and drawing on the data on emission sites and operators that was presented earlier, Chapter 8 outlines a methodology for the Czech government to assess the resources – staff, equipment, and funding - needed by the CA to fulfil its tasks, including inspections.

6 Inventories & mitigation in disused extraction sites

Rationale and overall principles

The EU-MER provisions discussed in this chapter aim to reduce CH_4 emissions from fossil fuel extraction sites that are no longer in use. These sites can continue emitting methane for many decades after operations cease, imposing ongoing health, safety and environmental costs on local communities and the global climate – long after the extraction took place.

In an efficient and well-regulated economy, the costs of halting such emissions and remediating the damage inflicted should fall on the operators. For this reason, the EU-MER requires operators of active assets to minimise future harm by taking a range of actions that aim to systematically reduce methane emissions and embed long-term operational changes. For disused sites, it establishes two key principles:

1) CH_4 emissions from disused fossil fuel extraction sites must be stopped.
2) In general, the costs of monitoring and mitigation measures must be borne by the entities responsible for the sites. Where the Member State cannot identify responsible parties, or where those parties lack sufficient financial means, the liability falls to the Member State.

The scale of effort required will vary significantly across Member States. Generally, the burden will be higher in countries with a long history of fossil fuel extraction and where previous post-operational mitigation was inadequate or insufficient. These Member States have historically benefited from fossil fuel production, and it is reasonable that they now assume greater responsibility for clean-up.

Importantly, this is a one-off effort, with limited costs over a limited period. Delaying implementation would only extend CH_4 emissions without reducing the eventual cost of action.

Areas of application and definition of responsibilities

The provisions discussed in this chapter apply to:

- "*Inactive wells, temporarily plugged wells, permanently plugged and abandoned* (oil and gas) *wells*" (IPAW) (Art. 18).
- Closed and abandoned underground coal mines (CUCM and AUCM) where coal production ceased after 3 August 1954 (Art. 24-25).

Active surface and underground coal mines are covered by different provisions (Article 19-20) not discussed in this chapter, which is dedicated to inactive, closed and abandoned assets (in short here "disused assets"). For all these assets, the EU-MER prescribes systematic CH_4 measurements, the development of mitigation plans, and the implementation of mitigation measures. In principle, the responsibility for all these actions lies with the entities operating or owning the sites.

However, with reference to the IPAW, Art 18(8) stipulates that "*where an operator, owner, licensee or a party otherwise responsible for the well under national law provides to the competent authority adequate and reliable evidence to demonstrate that it does not have the adequate financial means to fulfil those obligations or where the party responsible cannot be identified, the Member State shall bear responsibility for those obligations.*" The regulation remains silent on how a Member State should establish whether the responsible party has "adequate financial

means", but it is very clear on the fact that the measurement and mitigation obligations always apply. The only difference is whether the costs are borne by the state or by private parties.

A similar principle applies to underground coal mines. However, in this case, the distinction lies in the relative definitions:

- Art 2(53) defines a 'closed coal mine' as "*a coal mine where coal production has ceased (…) and for which an operator, owner or licensee has still a valid permit, licence or other legal document conferring responsibility for the coal mine.*"

  For closed coal mines, Art 25(7) assigns the responsibility for the compliance with the monitoring and reporting requirements to the "*mine operators or Member States*". Unlike in the case of IPAW, the situation of an operator without adequate financial means is not explicitly mentioned. However, the wording "*or Member States*" implies that the same arrangement also applies to CUCM.

- Art 2(54) defines an 'abandoned coal mine' as "*coal mine where coal production has ceased but for which no operator, owner or licensee can be identified as being subject to the obligations (…) or that has not been closed in a regulated manner.*"

  For abandoned coal mines, Art 25(7) assigns the responsibility for the compliance with the monitoring and reporting requirements to the Member States, unless an entity holds a permit for "alternative uses" of the AUCM. In this case, the responsibility lies with the permit holder.

Criteria the inventory must fulfil

By August 2025, the responsible ministry must set up inventories, make them publicly available and keep them up-to-date afterwards. The rules that apply to the IPAW differ slightly from those that apply to the CUCM and AUCM.

Concerning the IPAW, the responsible ministries must make "*all reasonable efforts*[5] *to locate and document*" all such wells, "*based on a robust assessment taking into account the most up to date scientific findings and best available techniques*" [Art 18(1)]. The MS must report "*information on quantification of methane emissions and, where pressure monitoring equipment exists, information on pressure monitoring from all inactive wells, and temporarily plugged wells*" and submit them to their CA by 5 May 2026, and by 31 May every year thereafter [Art 18(3)]. Moreover, the IPAW inventories must include a comprehensive set of information, including the results of a quantification of CH_4 emissions to air and water, and may include supplementary information, as outlined in Annex V, Part 1(1).

With respect to permanently plugged and abandoned wells (e.g., not including the inactive and temporarily plugged wells), the inventories must also include the last known measurements or quantification of CH_4 emissions to air and to water, if any such measurements exist, as well as documentation demonstrating that there are no CH_4 emissions from that well or well site [Annex V, Part 1(3)].

The CUCM and AUCM inventories must list "*all closed underground coal mines and abandoned underground coal mines in their territory or under their jurisdiction where operations ceased after 3 August 1954*" [Art 25(1)].

The CUCM and AUCM inventories must contain a series of information, including the results of source-level CH_4 measurements taken in all shafts that were actively used while the mine was operational, as well as unused vent pipes, and unused gas drainage wells. These

[5] For a discussion of the term "reasonable efforts" related to this article, see Penalties and selected legal issues (Piria, Sina, and Dück 2024), one of the reference studies cited in the introduction of this paper.

measurements must be conducted in accordance with specified principles, one of which is a CH_4 measurement accuracy of at least 0,5t per year [Annex VIII, Part 1].

Information sources for the inventories in Czechia

To establish the inventory, the MŽP can build on existing datasets from the Czech Geological Survey (2025a; 2025b; 2025c), which provides publicly accessible data on disused coal mines through its Underground and Abandoned Mines Database, while oil and gas wells are covered through its Borehole Survey. Together, these datasets offer a substantial portion of the information needed for the inventory. However, some details are either missing or only partially available, requiring the collection of additional data.

According to the Underground and Abandoned Mines Database, Czechia has 1,818 abandoned coal shafts and pits, 19 abandoned exploratory excavations, 335 closed historical mines, and 3,638 coal shafts and pits with unknown status. Some of these, however, are historical pits and shafts closed before 1954, which do not need to be inventoried.

The Borehole Survey lists 2,309 oil and gas reservoirs but does not indicate whether the wells are active or disused. As the Czech Mining Authority (2024) currently reports 135 active wells, it can be assumed that more than 2,000 are disused. However, the exact figure may differ, as the two authorities use different definitions and methodologies.

Apart from the country-wide standard emissions factors in the National Inventory Report mentioned above, we were unable to find asset-specific CH_4 quantifications or pressure monitoring results. Although the datasets from the Czech Geological Survey (2025a; 2025b; 2025c) provide detailed information on the precise location, status, dimensions (both width and depth), and discovery year of each asset, they do not include standardised, comparable data on CH_4 emissions or pressure monitoring. Thus, it is highly likely that extensive additional inspections, measurements, and assessments will be needed to gather data on disused assets for the inventory.

Identifying the entities responsible for mitigation and reporting

All disused fossil energy extraction sites that must be inventoried as described above are also subject to monitoring, reporting and verification (MRV), as well as to mitigation obligations. The responsible ministry's related responsibility and tasks can be of two types:

- If the responsible ministry can identify an operator, owner, licensee or another responsible party (RP) with "*the adequate financial means to fulfil those obligations*" [Art 18(8)], the responsibility of the RM is limited to ensuring that the RP fulfils the obligations described in this section.
- If the responsible ministry cannot identify a RP, or where the latter has no adequate financial means, the MS itself, via its responsible ministry, is responsible for fulfilling the following obligations [Art 18(8), 25(2), 25(4)].

Therefore, in each Member State, it is in the public interest that the responsible ministries identify accountable parties for as many disused sites as possible. However, this may prove difficult, especially for sites where operations ceased a long time ago. The earlier and the more thoroughly this search is conducted, the lower the risk that the state assumes liabilities that should fall to private actors. Failure to do so could negatively affect not only public finances but also public support for CH_4 mitigation policies.

Available information suggests that the Czech government will likely need to assume liability for many disused coal assets. According to data from the Czech Geological Survey, 470 disused coal shafts and pits are administered by seven private companies, while state-owned

companies – including Diamo (1,669) and OKD (48) – administer 1,715. The Underground and Abandoned Mines Database provides no ownership or licensee details, nor does it indicate who administers the remaining 3,638 disused coal shafts and pits listed. As for the oil and gas wells, the Borehole Survey lacks ownership, operator or licensee information for approximately 2,000 disused wells, meaning this information will likely need to be collected.

Therefore, it is clear that the MŽP will need to make efforts to identify responsible parties for several thousands of wells and coal mining sites. Postponing this task or approaching it half-heartedly would inevitably lead to significantly higher costs later, as the MŽP would be liable for reporting, mitigation plans, and measures for a larger number of disused extraction sites. Moreover, if the identification process is not conducted properly, the risk of litigation by companies identified as responsible parties increases.

To minimise both disputes and associated costs, the MŽP should carefully review and justify its decisions when assigning responsibilities. At the same time, an overly cautious approach would be counterproductive, as the Czech state may ultimately bear liability in the absence of clear assignments – reducing the public funds available for other purposes.

Detailed provisions on reporting, mitigation plans and mitigation measures

Concerning the IPAW, Art 18(2) requires that the reports with a quantification of CH_4 emissions "*shall be submitted to the competent authorities by 5 May 2026.*" Although this specific clause does not specify who is responsible for submitting those reports to the CA, the context makes it clear that the ultimate responsibility lies with the responsible ministries, either directly or through its duty to "*ensure that operators fulfil the obligations*" [Art 18(8)].

Furthermore, the responsible ministries are indirectly (via the RP) or directly responsible, among others, for taking "*all the necessary measures available to them for remediating, reclaiming and permanently plugging*" inactive wells where CH_4 emissions are detected, as long as this is "*technically feasible, and taking into account the environmental impacts of the necessary works in view of the associated reduction of the methane emissions*" [Art 18(6)].

Moreover, by August 2026, the MS or the RP must "*prepare a mitigation plan to remediate, reclaim and permanently plug inactive wells and temporarily plugged wells*" and implement it within 12 months of the reports mentioned above; in exceptional cases, within up to 36 months [Art 18(9)].

The mitigation plans must include "*the schedule of addressing each inactive well and temporarily plugged well, including the actions to be carried out*" as well as the "*projected end date of remediation, reclamation or plugging of inactive wells and temporarily plugged wells*" [Annex V, Part 2]. If the MS or the RP "*can demonstrate that the implementation of that mitigation plan is not possible within that deadline due to safety, administrative or technical considerations, they may delay*" the implementation by up to three years from the submission of the first report [18(9)].

Thus, all reports should be submitted by the RP or by the responsible ministry to the CA no later than May 2026. The implementation of mitigation measures must be completed by May 2029. Failure to meet these deadlines may result in infringement procedures initiated by the European Commission.

As for the AUCM and CUCM, the obligations include the measurement of CH_4 emissions on all elements which were found to emit > 0,5t CH_4/yr based on the inventory discussed above, with some exemptions [Art 25(2-4)]. By August 2026 and every year afterwards, the responsible ministries or the mine operators must submit reports to the CA containing estimated yearly source-level CH_4 emissions data [Art 25(6)].

Moreover, the responsible ministry must develop and implement a mitigation plan to address CH_4 emissions from CUCM and AUCM. The mitigation plans must be submitted by the responsible ministry to the CA by February 2027 [Art 26(1)].

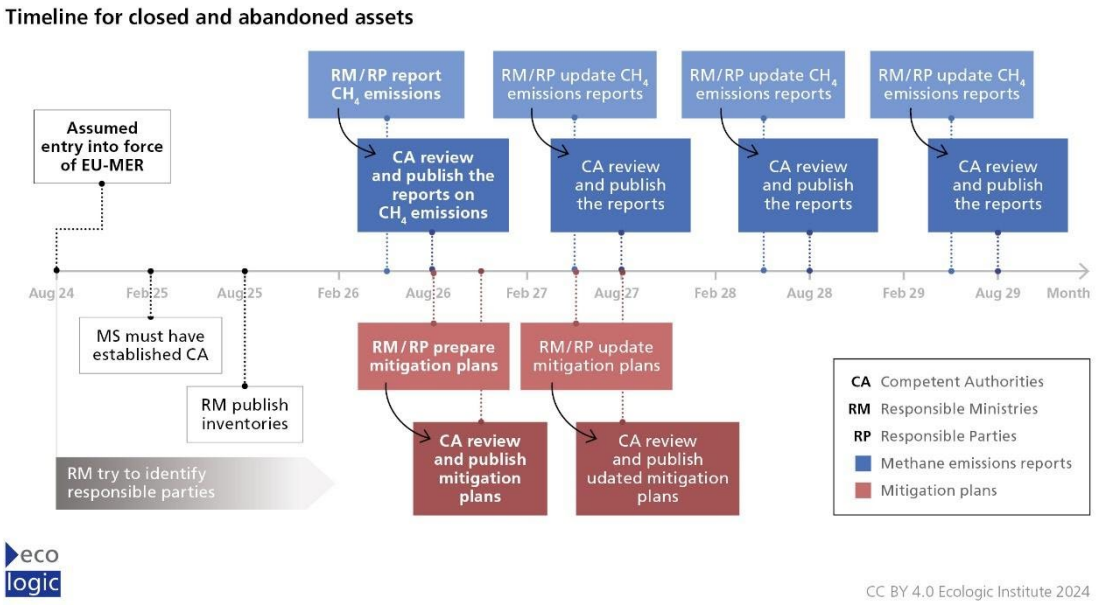
Timeline

Figure 6 shows the key milestones related to the inventories, MRV requirements and mitigation plans and measures for inactive, closed and abandoned assets.

Most elements in this figure represent activities with clear deadlines. The only exception is the element at the bottom left, which indicates that responsible ministries will attempt to identify responsible parties. This task is not explicitly required by the EU-MER, which only states that the liability for the costs of mitigation measures lies with Member States if "responsible parties" – entities carrying this liability – cannot be identified.

In practice, it would be prudent to complete this identification process before preparing the mitigation plans, which are due by August 2026. Therefore, we recommend that the RMs aim to conclude this task, at least for the majority of sites, by the end of 2025.

Figure 6: Timeline for inventories and mitigation plans for closed and abandoned assets



The recurring series of reports to be submitted by operators and undertakings subject to EU-MER obligations follow yearly cycles that extend beyond the timeframe shown in the chart. In other words, the red cycle continues into 2028 and beyond, and the blue cycle extends beyond 2029.

The CAs must review and publish these reports within three months of their submission by an operator or upon the completion of a mitigation plan by the responsible ministry [Art 18(10)].

7 Adequate powers and resources for the CAs

The Czech government must "*designate one or more competent authorities responsible for monitoring and enforcing the application*" of the EU-MER. Czechia should have notified the Commission of the CA's name(s) and contact details by 5 February 2025 [Art 4(1)]. Unfortunately, this first EU-MER deadline has been missed and at the time of closing this paper (31 March), there has been no public news about the formal establishment of the CA.

Moreover, the Czech government must "*ensure that the competent authorities (…) have adequate powers and resources to perform the tasks set out in this Regulation*" Art 4(3).

Building on the previous analysis, this chapter outlines the types of resources and powers required and provides an analysis of how to quantify the necessary resources.

Legal powers required by the competent authorities to fulfil their duties

Under Article 288(2) of the Treaty on the Functioning of the European Union, the EU-MER – like any other EU Regulation – is directly applicable in all EU Member States. It could therefore be argued that CAs are automatically empowered to carry out all actions necessary to fulfil their EU-MER tasks, even if some of these powers are not explicitly stated in the national act designating the CAs.

However, powers not explicitly granted to the CA by national legislation could be challenged in court – potentially by regulated entities seeking to hinder full implementation of the EU-MER. Even the risk of such challenges could delay implementation and reduce its effectiveness. This is likely why the EU-MER explicitly requires the MS to confer all necessary powers to their CAs. Clearly granting these powers enhances legal certainty and helps reduce the implementation costs.

Concerning inspections, the EU-MER requires that the Czech CAs are granted the following powers:

- the authority to decide the scope and intensity of inspections based on a risk assessment;
- the right to access and inspect company premises with/without notification, including the power of flying drones over the inspected premises and other areas that must be crossed to reach them, as well as the right to make use of relevant satellite data;
- access to relevant records and documents, including commercially confidential operational data as far as it is needed to verify the completeness and plausibility of the reports provided by the operators and to verify compliance;
- the power to request and collect any additional information necessary for monitoring and enforcement, including interviewing company personnel;
- the power to publish the inspection reports;
- where an inspection shows non-compliance, the power to set deadlines for the operators and importers to implement all actions needed to bring their operations into compliance.

For tasks other than inspections, the EU-MER requires that the Czech CAs are granted the following powers:

- the power to collect and process the data contained in the reports submitted by the operators, importers, responsible parties and Member States subject to reporting obligations according to the EU-MER. Where it requires publishing of reports, this encompasses the right to public disclosure;
- the power to initiate, lead and terminate administrative procedures, including hearings and other procedures permitted under administrative law;
- the power to issue warnings and notices;
- the power to impose remedial actions on operators and importers, (dis)approve and amend their leak detection and repair programmes, implementation schedules concerning venting and flaring, and other reports and proposals;
- the power to request additional evidence from operators and importers;
- the power to impose sanctions to address non-compliance;
- wherever the EU-MER provides leeway, the power to make use of it within the limits defined by the EU-MER and by other general principles of law, such as the principle of proportionality;
- the power to cooperate and share information with other authorities and other regulatory bodies at the national, EU and international level;
- the power to exempt certain operators from specific obligations, if the conditions defined in the EU-MER are fulfilled;
- the power to require from importers "sound" justification to explain their failure to achieve MRV-equivalence and to provide all due information.

Types of skills and resources needed

To implement the tasks arising from the EU-MER, Czechia requires staff with a diverse range of skills. Although both the CA and the MS may opt to outsource certain activities, it remains essential that they maintain a core team of skilled experts to oversee and control the work performed by external service providers. Thus, the degree of outsourcing is a management and governance issue, but does not impact the kind of skills needed by the CA and MS.

The following skills and knowledge will be needed:

- **Industry Knowledge:** A solid understanding of sectors such as coal mining, oil and gas extraction, pipeline transport, gas storage, distribution, and LNG is essential for evaluating reports, conducting inspections, and making decisions (e.g., on mitigation plans and measures, sanctions, and complaints).
- **Technical Skills:** Proficiency in technical and statistical methods and technologies for measuring, quantifying, and mitigating CH_4 emissions, including statistical analysis and expertise on methane emissions distributions, is essential. The MS requires these skills to meet obligations for emissions reporting as well as implementing mitigation plans and measures for abandoned assets. The CA needs these skills to evaluate the plausibility, appropriateness, and completeness of MRV reports and mitigation plans, conduct inspections, support decision-making, and address complaints related to CH_4 measurement. Key competencies include operating CH_4 measurement technologies (e.g., drones, infrared gas imaging, as well as airplanes for MRV and LDAR), interpreting data from different observations (e.g., emission rates, pressure, and atmospheric CH_4 levels) and sources (e.g., satellites, drones).

- **Legal skills**: Legal expertise is essential because some activities and outputs may be prone to litigation. This means that inspection procedures must be robust enough to withstand legal challenges and that penalty decisions must be thoroughly prepared and defendable.
- **Economics Skills**: Economic expertise is vital when applying the principle of proportionality with reference to economic factors. For instance, according to Art 33(1), the penalties imposed by the CA must be "effective, proportionate, and dissuasive," and fines must be set at a level that "at least deprives those responsible of the economic benefits derived from the infringement in an effective way" [Art 30(2)]. Although not explicitly mentioned in Art 18(9), the CA might also need to apply economic proportionality when requiring amendments to mitigation plans submitted by responsible parties or, in their absence, by the MS.
- **Other Skills**: Personnel of the MS and CA will also require skills in IT, logistics, management, administration, communication, and other areas to support routine EU-MER implementation activities.

Apart from the skills described above, the CA and RM will also require specialised equipment to conduct inspections and fulfil their obligations related to inventories, as well as to mitigation plans and measures for IPAW, AUCM, and CUCM. This includes:

- CH_4 detection devices (e.g., flame ionisation detectors, infrared gas detectors, and photoionisation detectors);
- CH_4 measurement instruments, including those capable of capturing emissions from individual sources and those suited for measuring emissions from entire sites;
- Mobile monitoring stations combining various sensors mounted on vehicles or mobile installations;
- Drones and airplanes equipped with detection and measurement tools.

To build and maintain the necessary administrative capacities, Czechia will require adequate and sustained funding. This funding will not only need to cover the costs for the recruitment and training of qualified personnel within the CA and MS, but also the acquisition, operation, and maintenance of specialised equipment essential for fulfilling EU-MER obligations. At the same time, resources will be necessary for the development of supporting infrastructure such as IT systems, databases, communication tools, and office logistics. In cases where activities are outsourced, sufficient financial resources must also be available to procure high-quality services while ensuring robust oversight mechanisms. National budgets may need to be adjusted accordingly, and EU-level funding instruments like the Recovery and Resilience Facility could provide complementary support. Reliable funding is therefore a precondition for ensuring effective, consistent, and legally sound implementation of the EU-MER.

How to keep the implementation costs at bay

To fulfil its obligation to provide the CAs and the responsible ministry with the necessary resources to carry out their EU-MER duties, the Czech government needs to estimate the scope of the tasks and specific resources required per unit of work. This section is to outline some key parameters needed for that estimation.

A substantial share of the EU-MER implementation costs is variable and largely influenced by factors beyond the control of the Member States. Notable examples include the number and complexity of sites to be inspected by the CAs, and the cost of mitigation measures for disused extraction sites for which the Czech government clearly bears responsibility.

However, some cost factors can be influenced by the Czech government. Three notable areas with a potential for cost reductions are:

- The MŽP must avoid assuming liability for sites that should fall under the responsibility of private actors. Keys measures include completing the inventories early, conducting thorough investigations to identify responsible parties, and having the capacity to resist unfounded litigation.
- For disused extraction sites legitimately under its responsibility, the MŽP can seek to reduce mitigation costs by selecting the most cost-effective methods for reducing emissions. For example, in Czechia, the large number of pits and shafts in disused coal mines suggests there may be opportunities to minimise costs by leveraging economies of scale and learning effects.
- The CA can reduce inspection costs through early and strategic planning. Efficient scheduling can optimise staff use, minimise travel costs, and improve resource allocation, whether inspections are done in-house or outsourced. Early tendering allows service providers to plan work smoothly, avoiding costly peaks. Similarly, if the inspections are carried out by in-house staff, early planning supports efficient recruitment, training, and equipment procurement.

These examples and the preceding analysis lead to two observations.

First, a significant portion of implementation costs will arise from one-off activities during the early phase. These activities include establishing inventories, identifying responsible parties for disused extraction sites, developing inspection procedures, recruiting and training in-house staff, as well as procuring equipment or, alternatively, contracting external service providers. Whether inhouse or external, both the first round of routine inspections and the first few non-routine ones are likely to require more effort than later rounds, as procedures become more streamlined with experience. The same argument applies to the workstreams for monitoring and evaluating incoming reports and making decisions based on them.

Second, a higher upfront investment in the initial phase of the EU-MER implementation is likely to improve the efficiency in implementation, thereby reducing implementation costs in the medium and long term, while enhancing climate mitigation impact. A well-planned implementation can minimise the risk of the state unnecessarily bearing liabilities that could be assumed by private actors, improve the cost-efficiency of inspections, reduce legal costs associated with litigation, and help avoid infringement procedures.

How to quantify the resources needed to implement the EU-MER in Czechia

Taking these observations into account, the Czech government needs to quantify the tasks and the resources required by their responsible ministries and competent CAs to fulfil their EU-MER duties.

Summarising the data and analysis from Chapters 3-6, the resources needed for EU-MER implementation in Czechia must be sufficient for the responsible ministry and CA to:

- By August 2025, establish an inventory of over 5,000 pits and shafts in disused coal mines as well as more than 2,000 abandoned oil and gas wells. This includes identifying the parties responsible for mandatory monitoring and mitigation measures in these sites and enforcing these actions either through the identified third parties or directly when no responsible parties with sufficient financial means are identified.
- Finalise the list of sites to be inspected, set up inspection programmes (routine and non-routine), and carry out inspections. This includes the disused sites mentioned, six

operating coal mines, 135 active oil and gas wells, over 4,000 km of gas transmission pipelines supported by 5 compressor stations with 36 turbines, and 100 transfer stations interfacing with gas distribution networks of more than 70,000 km, as well as more than a dozen gas storage facilities.

- Enforce the effective implementation of the EU-MER by the CA, including evaluating a large number of incoming reports (see Annex 1 of this paper), making a large number of decisions, including about imposing sanctions when necessary (Annex 2), and reporting to the European Commission and to the general public about these activities (Annex 3).
- Cooperate with the CAs from other Member States and third countries, deal with complaints lodged by any individual or legal entity, and carry out all other EU-MER implementation activities.

Annex 1 – Incoming reports to be evaluated by the CA

This list completes the information provided in Chapter 7.

Emissions monitoring reports to be submitted to the CA

- Monitoring report with generic emission factors to be submitted by the operators of the oil and gas sectors assets by 5 August 2025 [Art 12(1)].
- Monitoring reports with the results of the measurement of the volume of methane releases per ventilation shaft and with yearly source-level emissions to be submitted by coal mine operators by 5 August 2025 and by 31 May every year thereafter [Art 20(1), Art 20(6)].
- Monitoring report with a quantification of source-level emissions to be submitted by the operators of the oil and gas sectors by 5 February 2026 for operated assets and 5 February 2027 for non-operated assets [Art 12(2)].
- Monitoring report with a quantification of source-level and measurement of site-level emissions to be submitted by the operators of the oil and gas sectors by 5 February 2027 and by 31 May every year thereafter for operated assets and 5 August 2028 and by 31 May every year thereafter for non-operated assets [Art 12(3)].
- Reports quantifying the emissions and information on pressure monitoring from all inactive & temporarily plugged oil and gas wells, to be submitted by the operators by 5 May 2026 and by 31 May every year thereafter. In MS with more than 40,000 IPAW, a relaxed schedule applies [Art 18(3)].
- Information on the standards, including international standards, or methodologies used for measurements and quantifications to be submitted by operators from the oil and gas sectors [Art 12(5)] and by coal mine operators [Art 20(4)] or the Member States, where the latter bear the responsibility for e.g. abandoned underground coal mines [Art 25(2), Art. 25(6)].
- Notifications on discrepancies to be submitted by the operators of the oil and gas sectors without delay after detection and before the end of the reporting period of a discrepancy between a quantification and a measurement [Art 12(6)].
- The results of the reconciliation process to be submitted by the operators of the oil and gas sectors that have the duty to carry out the reconciliation process as soon as possible after the detection of a discrepancy [Art 12(6)].
- Reports about hydrogeological conditions and the absence of material CH_4 emission to be submitted by those responsible for closed or abandoned coal mines (RP or RM) [Art 25(4)].
- Reports containing estimates of yearly source-level CH_4 emissions data to be submitted by those responsible for closed or abandoned coal mines (RP or RM) by 5 August 2026 and by 31 May every year thereafter [Art 25(6)].

LDAR to be submitted to the CA

- Leak detection and repair (LDAR) programmes to be submitted by oil & gas sectors operators by 5 August 2025 for existing sites, and within 6 months of the date of start

of operations for new sites. These reports must include sufficient information on the standards or methodologies used [Art 14(1)].

- Evidence justifying decision to delay repair to be submitted by the operators without any delay [Art 14(10)].
- Repair and monitoring schedules and reports summarising the results of all surveys to be submitted by the operators yearly [Art 14(14)].

Venting and flaring reports to be submitted to the CA

- The demonstration of the necessity to opt for flaring instead of either re-injection, on-site utilisation, storage for later use or dispatch of the methane to a market, to be submitted by the oil & gas sectors operators who opt to do so [Art 15(6)]
- Detailed implementation schedules with evidence of conditions justifying the exceptional delay of the actions concerning venting and flaring required by Article 15, to be submitted by the oil & gas sectors operators [Art 15(8)].
- Notification of venting and flaring events to be submitted by the operators without delay after the event and at the latest within 48 hours of the start of the event [Art 16(1)].
- Annual reports of all venting & flaring events, to be submitted by the oil and gas sector operators [Art 16(2)].
- Demonstration of the necessity to – in exceptional cases – opt for venting instead of flaring, to be submitted by the drainage station operators as soon as possible and at the latest within 48 hours of the operator becoming aware of the event, appliable from 1 January 2025 onwards [Art 22(1)].
- Notification of all venting events and of all flaring events with a destruction and removal design efficiency below 99%, to be submitted by the drainage station operators without delay after the event and at the latest within 48 hours from the start of the event or the moment the operator became aware of it [Art 23(1)]

Reports to CAs on mitigation plans

- Mitigation plans for emissions from closed and abandoned underground coal mines, to be submitted by the operators or by the Member States by 5 February 2027 [Art 26(1)].

Reports to CAs on imports

- Information set out in Annex VIII to be submitted by importers by 5 May 2025 and by 31 May every year thereafter or, alternatively, a justification why this information has not been provided [Art 27(1)].
- Report and demonstration that import supply contracts concluded or renewed after 4 August 2024 for the supply of crude oil natural gas or coal produced outside the EU do cover solely crude oil natural gas or coal with monitoring, reporting and verification (MRV-equivalence). To be submitted by importers from 1 January 2027 onwards [Art 28(1)].
- Information showing the results of the importers' reasonable efforts to require MRV-equivalence for the supplies covered by contracts concluded before the entry into force of the EU including a justification in case they fail to achieve MRV-equivalence. To be submitted by importers as of 1 January 2027 [Art 28(2)].

- Reports from producers and importers with supply contracts concluded or renewed after 4 August 2024 about the CH_4 intensity associated to the production of oil, gas and coal placed on the Union market. To be submitted by producers and importers by 5 August 2028 and every year thereafter [Art 29(1)].
- Reports from producers and importers with supply contracts concluded or renewed before 4 August 2024 about their reasonable efforts to get the data needed to report the CH_4 intensity associated to the production of oil, gas and coal placed on the Union market and the results of such efforts [Art 29(1)].

Annex 2 – Decisions to be taken by the CA

This list completes the information provided in Chapter 7.

Decisions concerning monitoring and reporting

- In case of notifications on statistically significant discrepancies between the source-level quantification and the site-level measurement of methane emissions by operators and undertakings subject to EU-MER obligations, or where the CA receives from them information on a reconciliation process concerning such discrepancies, the CA may request additional information or additional actions [Art 12(6)].
- The CA may exempt CUCM and AUCM operators from their monitoring duty where mines have been fully flooded for at least 10 years [Art 25(4)].

Decisions concerning LDAR

- The CA may require from the operators to amend their LDAR programme according to the requirements of the EU-MER [Art 14(1)].
- On request of the operators, CA must (dis)approve, and thus may prohibit alternative LDAR survey frequencies for components where no leaks were identified [Art 14(5)].
- The CA may require the operators to amend their repair and monitoring schedule in three specified cases [Art 14(9), Art 14(10), Art 14 (14)].
- The CA must (dis)approve, and thus may prohibit the possible decision of an operator decision to delay the repair of any leak [14(10)].
- The CA may recommend that surveys of the relevant components take place more frequently, if a higher risk to safety or a higher risk of methane losses is identified [14(12)].
- The CA may require the operators to amend their annual LDAR report summarising the results of all surveys completed during the previous year [Art 14(14)].

Decisions concerning venting and flaring

- The CA may require modifications of the implementation schedule for requirements concerning venting and flaring [Art 15(8)].
- The CA must (dis)approve, and thus may prohibit the usage of remote or automated monitoring systems as alternative to regular inspections concerning venting and flaring [Art 17(3)].

Decisions concerning sanctions and remedial actions

- If an inspection according to Art 6 identifies a serious breach of any requirements of the EU-MER, the CA must either issue to the inspected operator or importer notice of remedial actions (with clear deadlines for those actions) or instruct them to submit a set of remedial actions to address the breaches identified within one month from the conclusion of the inspection. In case of the latter, the CA must (dis)approve such set of remedial actions [Art 6(2)].
- The CA must impose penalties at least in the case of (list of 16 types of infringements), based on a list of obligatory indicative criteria for imposition of penalties according to [Art 33(3)], [Art 33(5)].

- If the legal system of a MS does not provide for administrative fines, the CA shall initiate a fining procedure [Art 33(3)].

Decisions concerning abandoned underground coal mines

- The CA must receive and, arguably[6], (dis)approve the plans of measures to avoid methane emissions submitted by entities applying for a permit for an alternative use of abandoned underground coal mines [Art 26(3)].

Decisions concerning IPAW and offshore oil and gas

- If the CA has evidence that an IPAW emit longer than foreseen by Art 18(3), it must determine the application of certain obligations originally set out for temporarily plugged wells [Art 18(5)].
- The CA may ask the MS or RP to amend the mitigation plan concerning IPAW [Art 18(9)].

[6] Art 26(3) EU-MER only states that the applicants "shall provide a detailed plan" showing that it will comply with the monitoring, reporting and mitigation obligations established by the EU.MER. The text does not specify the role of the CA. We assume that the permitting authority will require the CA's approval of this plan.

Annex 3 – List of reports and publications to be produced by the CAs

This list completes the information provided in Chapter 7.

- Following each inspection, the CA shall prepare a report. Thereby, it may issue one report covering multiple inspections of components, assets or sites of the same operator or mine operator, provided such inspections are done in the same inspection period [Art 6(5)].
- Within two months after a carried-out inspection the CA must also publish the related report in accordance with Directive 2003/4/EC, which means that where relevant, the CA must indicate that information has been withheld according to Article 4 of the 2003/4/EC and explain why [Art 6(5) and Art 5(4)].
- The inspection related report must be notified to the concerned operator or importer and, where relevant, also to a complainant [Art 6(5)].
- After a (substantiated) complaint, the CA must keep the complainant informed of steps taken and inform them of appropriate alternative forms of redress such as the recourse to national courts [Art 7(4)].
- The CA must publish indicative periods to take a decision on complaints [Art 7(5)].
- The CA must publish all reports set out in Art 12 concerning the methane emission measurements and quantification within no longer than 3 months of their submission by operators and undertakings subject to EU-MER obligations [Art 12(8) and Art 5(4)].
- The CA must notify the EU Commission of derogations granted with regard to LDAR survey frequency [Art 14(5)].
- The CA must review and publish the IPAW reports and mitigation plans within 3 months of submission by operators or completion by MS [Art 18(10)].
- The CA must publish reports set out in Art 20 concerning the MRV duties related to operating coal mines within 3 months of submission by operators [Art 20(7) and Art 5(4)].
- CA must annually publish and notify the EU of any received information about venting/flaring events [Art 23(2) and Art 5(4)].
- CA must publish the report accompanying an exemption request from the RP for CUCM and AUCM [Art 25(4)].
- In general, CA must make reports concerning monitoring of CUCM & AUCM available to the public and the European Commission within 3 months from submission by operators [Art 25(8)].

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